



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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December 3, 2013

Kim Moore  
Snohomish County PUD No. 1  
PO Box 1107  
Everett, WA 98206

RE: Water Quality Certification Order #9337  
Federal Energy Regulatory Commission Project No. 12690  
Admiralty Inlet Pilot Tidal Project, Admiralty Inlet, Island County, Washington

Dear Mr. Moore:

On February 9, 2012, Snohomish County PUD No. 1 submitted a Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) for a Section 401 Water Quality Certification (401 Certification) under the federal Clean Water Act for the proposed Admiralty Inlet Pilot Tidal project. A request to withdraw and re-apply for a 401 Certification was submitted on February 6, 2013.

On behalf of the State of Washington, Ecology certifies that the work described in the JARPA and the public notice complies with applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act, as amended, and applicable state laws. This certification is subject to the conditions contained in the enclosed Order.

If you have any questions, please contact Rebekah Padgett at (425) 649-7129. The enclosed Order may be appealed by following the procedures described in the Order.

Sincerely,

Erik Stockdale, Section Manager  
Shorelands and Environmental Assistance Program  
Northwest Regional Office

ES:rrp:cja

Enclosure

**By certified mail: 7011 0470 0003 3720 7752**



cc: David Turner, Federal Energy Regulatory Commission  
Randel Perry, U.S. Army Corps of Engineers  
Jessica Spahr, Snohomish County PUD No. 1  
Eric Schneider, Snohomish County PUD No. 1  
Brady Scott, Washington Department of Natural Resources  
Doug Thompson, Washington Department of Fish and Wildlife  
Susan Cierebiej, Washington Department of Fish and Wildlife  
Brock Applegate, Washington Department of Fish and Wildlife  
Steven Jeffries, Washington Department of Fish and Wildlife  
Timothy Romanski, U.S. Fish and Wildlife  
Keith Kirkendall, National Marine Fisheries Service  
Kim Hatfield, National Marine Fisheries Service  
Brent Norberg, NOAA Fisheries  
Alison Agness, NOAA Fisheries  
Daryl Williams, The Tulalip Tribes  
Tom Ostrom, Suquamish Tribe  
Stan Walsh, Skagit River System Cooperative  
LCDR Heather St. Pierre, U.S. Coast Guard  
Susan Rosebrough, National Park Service

e-cc: David Pater – NWRO  
Skip Albertson – HQ  
Christopher Krembs – HQ  
Norm Davis – NWRO  
Sheila Hosner, Governor's Office of Regulatory Assistance  
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<b>IN THE MATTER OF GRANTING A</b>	)	<b>ORDER #9337</b>
<b>WATER QUALITY</b>	)	<b>FERC Project No. 12690</b>
<b>CERTIFICATION TO</b>	)	Admiralty Inlet Pilot Tidal Project; Admiralty
<b>SNOHOMISH COUNTY PUD NO. 1</b>	)	Inlet, Island County, Washington.
in accordance with 33 U.S.C. 1341	)	
(FWPCA § 401), RCW 90.48.120, RCW	)	
90.48.260 and Chapter 173-201A WAC	)	

TO: Kim Moore  
 Snohomish County PUD No. 1  
 PO Box 1107  
 Everett, WA 98206

On February 9, 2012, Snohomish County PUD No. 1 submitted a Joint Aquatic Resources Permit Application (JARPA) to the Department of Ecology (Ecology) for a Section 401 Water Quality Certification. A request to withdraw and re-apply for a 401 Certification was submitted on February 6, 2013. Public notices regarding the requests were distributed by Ecology for the above-referenced project pursuant to the provisions of Chapter 173-225 WAC on April 3, 2012 and March 8, 2013.

The pilot tidal energy proposal includes:

- Temporary placement of two 6-meter-diameter OpenHydro turbines on the seafloor at a water depth of approximately 58 meters.
- Installation of two 1.05-mile subsea transmission cables and a power control building.

The turbines would be located approximately ½ mile offshore of Whidbey Island, Island County, Washington, Admiralty Inlet, Section 22, T. 31 N., R. 1E., WRIA 6. The transmission cables landfall at 13254 State Route 20, Coupeville, Island County, Washington, Section 22, T. 31 N., R. 1E., WRIA 6.

#### **AUTHORITIES:**

In exercising authority under 33 U.S.C. § 1341, RCW 90.48.120, and RCW 90.48.260, Ecology has examined this application pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. §§ 1311, 1312, 1313, 1316, and 1317 (FWPCA §§ 301, 302, 303, 306 and 307);
2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. § 1313 and by Chapter 90.48 RCW, and with other applicable state laws; and

3. Conformance with the provision of using all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.

**WATER QUALITY CERTIFICATION CONDITIONS:**

Through issuance of this Order, Ecology certifies that it has reasonable assurance that the activity as proposed and conditioned will be conducted in a manner that will meet the applicable water quality standards and other appropriate requirements of state law. In view of the foregoing and in accordance with 33 U.S.C. § 1341, RCW 90.48.120, RCW 90.48.260 Chapter 173-200 WAC and Chapter 173-201A WAC, water quality certification is granted to the Applicant subject to the conditions within this Order.

Certification of this proposal does not authorize the Applicant to exceed applicable state water quality standards (Chapter 173-201A WAC), ground water standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC). Furthermore, nothing in this certification shall absolve the Applicant from liability for contamination and any subsequent cleanup of surface waters, ground waters or sediments occurring as a result of project construction or operations.

**A. General Conditions:**

- A1. For purposes of this Order, the term "Applicant" shall mean Snohomish County PUD No. 1 and its agents, assignees and contractors.
- A2. For purposes of this Order, all submittals required by its conditions shall be sent to Ecology's Northwest Regional Office, Attn: 401/CZM Federal Project Manager, 3190 160<sup>th</sup> Avenue SE, Bellevue, WA 98008-5452. Any submittals shall reference Order #9337 and FERC Project #12690.
- A3. Work authorized by this Order is limited to the work described in the JARPA received by Ecology on February 9, 2012. The Applicant will be out of compliance with this Order and must reapply with an updated application if the information contained in the JARPA is voided by subsequent changes to the project not authorized by this Order.
- A4. Within 30 days of receipt of an updated JARPA, Ecology will determine if the revised project requires a new water quality certification and public notice or if a modification to this Order is required.

- A5. Copies of this Order shall be kept on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers and lead workers, and state and local government inspectors.
- A6. The Applicant shall provide access to the project site and all mitigation sites upon request by Ecology personnel for site inspections, monitoring, necessary data collection, and/or to ensure that conditions of this Order are being met.
- A7. Nothing in this Order waives Ecology's authority to issue additional orders if Ecology determines that further actions are necessary to implement the water quality laws of the state. Further, Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if additional impacts due to project construction or operation are identified (*e.g.*, violations of water quality standards, downstream erosion, etc.), or if additional conditions are necessary to further protect water quality.
- A8. The Applicant shall ensure that all appropriate project engineers and contractors at the project site have read and understand relevant conditions of this Order and all permits, approvals, and documents referenced in this Order. The Applicant shall provide Ecology a signed statement (see Attachment A for an example) from each project engineer and contractor that they have read and understand the conditions of this Order and the above-referenced permits, plans, documents and approvals. These statements shall be provided to Ecology before construction begins at the project or mitigation sites.
- A9. This Order shall be rescinded if the Federal Energy Regulatory Commission does not issue authorization for the project.
- A10. This Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this Order.
- A11. Failure of any person or entity to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce its terms.

**B. Water Quality Condition:**

- B1. Admiralty Inlet is classified as "Extraordinary Quality" and the criteria of that class apply except as specifically modified by this Order. This Order does not authorize temporary exceedances of water quality standards beyond the limits established in WAC 173-201A-210(1)(e)(i).

- B2. The Applicant shall conduct water quality sampling and monitoring as described in *Water Quality Monitoring Plan*, for the Admiralty Inlet Pilot Tidal Project, dated February 29, 2012, revised December 5, 2012, or as modified by this Order or revised and approved by Ecology.
- B3. Water quality monitoring for turbidity shall be conducted during horizontal directional drilling (HDD) activity. Divers may conduct underwater visual monitoring or physical monitoring from a boat shall be conducted.
- B4. Water quality monitoring for turbidity shall be conducted during cable removal, unless otherwise approved in writing by Ecology.
- B5. Sampling for pH shall be conducted immediately if a frac-out or other release of grout material occurs during HDD activity.
- B6. Oil sheen shall be visually monitored during all installation, maintenance, and removal activities.
- B7. Reporting: If no exceedances are detected, results of water quality sampling, as determined by the Plan, shall be forwarded to Ecology on a monthly basis in accordance to Condition A2.
- B8. Notification of exceedances: Notification of exceedances that are detected through water quality sampling shall be made to Ecology within 24 hours of occurrence. Notification shall be made with reference to Order #9337, Attn: 401/CZM Federal Project Manager, by telephone at (425) 649-7129 or (425) 649-7000, or by fax to (425) 649-7098. The Applicant shall, at a minimum, provide Ecology with the following information:
  - a. A description of the nature and cause of exceedance.
  - b. The period of non-compliance, including exact dates, duration, and times and/or the anticipated time when the Applicant will return to compliance.
  - c. The steps taken, or to be taken, to reduce, eliminate, and prevent recurrence of the non-compliance.
  - d. In addition, within five (5) days after notification of an exceedance, the Applicant shall submit a written report to Ecology that describes the nature of the exceedance, turbidity results and location, photographs, and any other pertinent information.

**C. Conditions for Construction Activities:**

**General Conditions:**

- C1. Construction stormwater, sediment, and erosion control best management practices (BMPs; *e.g.*, filter fences, etc.) suitable to prevent exceedances of state water quality standards shall be in place before starting construction at the site.
- C2. Sediment and erosion control measures shall be inspected and maintained prior to and during project implementation.
- C3. All construction debris shall be properly disposed of on land so that it cannot enter a waterway or cause water quality degradation to state waters.
- C4. Machinery and equipment used during construction shall be serviced, fueled, and maintained upland, unless otherwise approved by Ecology, in order to prevent contamination to any surface water.
- C5. Wash water containing oils, grease, or other hazardous materials resulting from wash down of equipment or working areas shall be contained for proper disposal, and shall not be discharged into state waters or storm drains.

**In-Water Conditions:**

- C6. Work in or near the water that may affect fish migration, spawning, or rearing shall cease immediately upon a determination by Ecology that fisheries resources may be adversely affected.
- C7. Project activities shall be conducted to minimize siltation of the beach area and bed.
- C8. The Applicant shall operate the barge(s) and tug in deep water so as to minimize nearshore propeller wash impacts such as suspension of nearshore sediments.
- C9. Barges shall not be allowed to ground-out during construction.
- C10. Transmission cables shall be laid on the seafloor from the horizontal directional drilling (HDD) exit point to the turbines. Cables shall not be buried in this segment, and trenching of the cable route may not be used for this project.
- C11. Aquatic vegetation (eelgrass and kelp) shall be observed for presence prior to construction. If eelgrass and/or kelp are present, the boundaries shall be marked with floats, buoys, or other means as appropriate in order to restrict access and anchoring during construction.

- C12. In-water work barges shall not be allowed to anchor in areas where aquatic vegetation is present.

**D. Horizontal Directional Drilling Conditions**

- D1. The Applicant shall conduct HDD activity as described in *Preliminary Horizontal Directional Drilling Plan, Snohomish County Public Utility District No. 1 Tidal Project*, prepared by Sound & Sea Technology, Inc., dated August 29, 2011, or as modified by this Order or revised and approved by Ecology.
- D2. Monitoring of pressure and volume shall be conducted in order to minimize the occurrence of a "fracout."
- D3. If a fracout occurs, the Applicant shall stop or slow down HDD operations in order to allow the mud to seal the fracout.
- D4. All HDD solids and drill tailings shall be placed into plastic-lined dumpsters or hoppers on the uplands and trucked off site to an approved upland disposal facility.
- D5. HDD wastewater shall not be allowed to flow back into marine waters.
- D6. Prior to reaching the exit point on the ocean floor, the drill string shall be flushed with freshwater and the drilling fluid changed from bentonite to freshwater.
- D7. The Applicant shall submit an HDD Work Plan to Ecology per Condition A2 at least 30 days prior to start of horizontal directional drilling activity. The HDD Work Plan shall include drawings and a written description identifying construction detail methods and sequencing.
- D8. The Applicant shall submit a Frac-Out and Surface Spill Contingency Plan (hereafter referred to as the 'Contingency Plan') to Ecology per Condition A2 at least 30 days prior to start of horizontal directional drilling activity. The Contingency Plan shall include:
- a. Description of procedures for preventing drilling fluid losses or spills into the marine environment and fluid returns to the surface
  - b. Description of containment and cleanup procedures.

**E. Operational Conditions:**

- E1. No oils, grease, or lubricants shall be utilized for the turbine, and no fluid or oil-filled equipment shall be located underwater.



- E2. The use of antifouling paint on the turbines shall be minimized to the extent practicable, and antifouling paint shall be non-flaking.
- E3. Coatings and paints shall be approved for use in the marine environment.
- E4. All maintenance of the turbines or other in-water components shall be conducted out of the water and appropriate BMPs shall be implemented in order to protect water quality.
- E5. If derelict gear is removed during the operation of the turbines, then removal of this gear shall be conducted in such a way as to minimize turbidity.
- E6. Benthic habitat at the turbine site and along the cable route shall be monitored according to the *Benthic Habitat Monitoring and Mitigation Plan, Admiralty Inlet Tidal Energy Demonstration Project, Federal Energy Regulatory Commission Project No. 12690*, dated June 14, 2012 or as modified by this Order or revised and approved by Ecology.
  - a. Written reports shall be provided annually to Ecology per Condition A2 by March 31 for the prior calendar year of operation. The reports shall describe:
    - i. Changes to colonization of the subsea base, power cables, and drill hole exit point.
    - ii. Changes to seabed benthic habitat around the subsea base, including sediment scour and deposition.
  - b. If surveys indicate significant erosion at the contact points between the subsea base and seabed, Ecology shall be consulted to determine if project modifications are necessary.
- E7. At the conclusion of the pilot, or prior to the expiration of the FERC Pilot License, the two turbines and two transmission cables shall be removed from Admiralty Inlet, unless otherwise approved by Ecology.

**F. Plan Submittal Conditions:**

- F1. The Applicant shall develop and implement a Project Removal Plan for removal of the turbines and transmission cables. The Project Removal Plan shall be submitted to Ecology per Condition A2 for review and approval at least 60 days prior to removal and include the following:
  - a. Project removal timing and sequencing
  - b. Cable Removal: Method of cable removal, best management practices that will be implemented to protect water quality, and water quality monitoring for cable removal.
  - c. A plan for restoring the project area to pre-project conditions. This plan shall address the horizontal directional exit hole, as well as any erosion/sedimentation impacts caused by the cables.

- F2. If the Applicant proposes leave the cables in place at the completion of the project, details of such proposal shall be included in the Project Removal Plan per F1.

**G. Emergency/Contingency Measures:**

- G1. The Applicant shall develop and implement a Spill Prevention and Containment Plan for all aspects of this project.
- G2. The Applicant shall have adequate and appropriate spill response materials on hand to respond to emergency release of petroleum products or any other material into waters of the state.
- G3. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
- G4. Any work that is out of compliance with the provisions of this Order, or conditions causing distressed or dying fish, or any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, is prohibited. If these occur, the Applicant shall immediately take the following actions:
- a. Cease operations at the location of the violation or spill.
  - b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.
  - c. Notify Ecology of the failure to comply. All oil spills shall be reported immediately to Ecology's 24-Hour Spill Response Team at 1-800-258-5990, **and** within 24 hours of spills or other events to Ecology's 401/CZM Federal Project Manager at (425) 649-7129 or (425) 649-7000.
  - d. Submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.

Compliance with this condition does not relieve the Applicant from responsibility to maintain continuous compliance with the terms and conditions of this Order or the resulting liability from failure to comply.

## **H. Timing Requirements**

- H1. All in-water work shall be completed by the work window identified in the most current Hydraulic Project Approval (HPA) issued for this project. Any project change that requires a new or revised HPA should also be sent to Ecology for review.
- H2. This Order is valid for a period of 10 years from the date of the FERC Pilot License.

## **I. Reporting and Notification Requirement Conditions**

- I1. The Applicant shall provide to Ecology's 401/CZM Federal Permit Manager a copy of the FERC license within 2 weeks of receipt of the license. A copy shall be submitted per condition A2 above.
- I2. Applicant shall provide notice to Ecology per Condition A2 for the following activities:
- At least 10 days prior to the pre-construction meeting.
  - At least three (3) days prior to the start of construction
  - Within 14 days after completion of construction at the project site.
  - At least 10 days prior to any maintenance activity.
  - At least 10 days prior to removal of the turbines and cables.
- I3. If the project construction is not completed within 13 months of issuance of this Order, the Applicant shall submit per Condition A2 a written construction status report and submit status reports every 12 months until construction is complete.

## **YOUR RIGHT TO APPEAL**

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do both of the following within 30 days of the date of receipt of this Order:

File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

## ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel Road SW STE 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

## CONTACT INFORMATION

Please direct all questions about this Order to:

Rebekah Padgett  
Department of Ecology  
Northwest Regional Office  
3190 160<sup>th</sup> Avenue SE  
Bellevue, WA 98008  
(425) 649-7129  
[rebekah.padgett@ecy.wa.gov](mailto:rebekah.padgett@ecy.wa.gov)

## MORE INFORMATION

**Pollution Control Hearings Board Website**  
[www.eho.wa.gov/Boards\\_PCHB.aspx](http://www.eho.wa.gov/Boards_PCHB.aspx)

**Chapter 43.21B RCW - Environmental and Land Use Hearings Office – Pollution Control Hearings Board**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=43.21B>

**Chapter 371-08 WAC – Practice And Procedure**  
<http://apps.leg.wa.gov/WAC/default.aspx?cite=371-08>

**Chapter 90.48 RCW – Water Pollution Control**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48>

**Chapter 173-204 WAC – Sediment Management Standards**  
[www.ecy.wa.gov/biblio/wac173204.html](http://www.ecy.wa.gov/biblio/wac173204.html)

**Chapter 173-200 WAC – Water Quality Standards for Ground Waters of the State of Washington**

[www.ecy.wa.gov/biblio/wac173200.html](http://www.ecy.wa.gov/biblio/wac173200.html)

**Chapter 173-201A WAC – Water Quality Standards for Surface Waters of the State of Washington**

[www.ecy.wa.gov/biblio/wac173201A.html](http://www.ecy.wa.gov/biblio/wac173201A.html)

**SIGNATURE**



Erik Stockdale, Section Manager  
Shorelands and Environmental Assistance Program  
Northwest Regional Office



December 3, 2013

**ATTACHMENT A**

**SNOHOMISH COUNTY PUD NO. 1  
PUBLIC UTILITY DISTRICT NO. 1 OF SNOHOMISH COUNTY  
– ADMIRALTY INLET PILOT TIDAL PROJECT  
Water Quality Certification Order #9337**

**Statement of Understanding of  
Water Quality Certification Conditions**

I have read and understand the conditions of Order #9337 Section 401 Water Quality Certification for the Public Utility District No. 1 of Snohomish County – Admiralty Inlet Pilot Tidal Project. I have also read and understand all permits, plans, documents, and approvals associated with the project referenced in this Order.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Company